

CLAIMS

What is claimed is:

1. A method comprising the steps of:

utilizing the excess capacity of a network by conveying data over said network during a period of less than maximum usage;

receiving said data during said period of less than maximum usage;

accumulating said data over an extended period of time; and

retrieving said data for on-demand use at a time after said extended period of time.
2. A method as recited in Claim 1, in which said network includes a satellite.
3. A method as recited in Claim 2, in which said satellites operate in low Earth orbit.

4. A method as recited in Claim 2, in which said satellites operate in medium Earth orbit
5. A method as recited in Claim 2, in which said satellites operate in high Earth orbit.
6. A method as recited in Claim 2, in which said satellites operate in geosynchronous Earth orbit.
7. A method as recited in Claim 2, in which said satellites operate in mid Earth orbit.
8. A method as recited in Claim 2, in which said network includes a sub-orbital platform.
9. A method as recited in Claim 2, in which said network includes a terrestrial wired network.

10. A method as recited in Claim 2, in which said network includes a terrestrial wireless network.
11. A method as claimed in Claim 10, further including the step of transmitting said data by television broadcast stations on existing channels; said data being inserted into picture scan lines.
12. A method as claimed in Claim 10, further including the step of transmitting said data by television broadcast stations on existing channels; said data being inserted into scan lines corresponding to a Vertical Blanking Interval (VBI).
13. A method as claimed in Claim 10, further including the step of transmitting said data by television broadcast stations on existing channels; said data being inserted into subcarriers in a composite baseband of television signals, of zero to 120 kilohertz.
14. A method as claimed in Claim 10, further including the step of transmitting said data by television broadcast stations on existing channels; said data being inserted into other signals in a composite baseband of television signals, of zero to 120 kilohertz.

15. A method as claimed in Claim 10, further including the step of transmitting said data by an AM radio broadcast station on an existing channel.
16. A method as claimed in Claim 10, further including the step of transmitting said data by a FM radio broadcasting station on an existing channel.
17. A method as claimed in Claim 15 in which the step of step of transmitting said data by an AM radio broadcast station on an existing channel includes the step of transmitting said data by signals not audible on ordinary consumer receivers.
18. A method as claimed in Claim 15 in which the step of transmitting said data by an AM radio broadcast station on an existing channel includes the step of modulating a subcarrier at a center frequency of said channel.
19. A method as claimed in Claim 16 in which the step of transmitting said data by an FM radio broadcast station on an existing channel includes the step of modulating a subcarrier at a center frequency of said channel.

20. An apparatus comprising:

transmission means for transmitting digitized packets of data over a network
means for communicating said packets of data; said data being transmitted to
a plurality of authorized users;

5 said transmission means including a gateway means;

 said transmission means further including a relay means for receiving
 said plurality of digitized packets of data from said gateway means and
 for retransmitting during a time period when the total communications
 capacity of said relay means is not fully used;

10 a receiver means for collecting said plurality of digitized packets of data which
 are transmitted from said transmission means;

 said receiver means including a storage means for accumulating said plurality
 of digitized packets of data incrementally over an extended period of time;
 and

15 retrieving and using said plurality of digitized packets of data after a generally
 full program has been accumulated.

21. The apparatus as claimed in Claim 20 in which said transmission means includes television broadcast stations on existing channels; said data being inserted into picture scan lines.

22. The apparatus as claimed in Claim 20 in which said transmission means include television broadcast stations on existing channels; said data being inserted into video scan lines corresponding to a Vertical Blanking Interval (VBI).

23. The apparatus as claimed in Claim 20 in which said transmission means includes television broadcast stations transmitting on an existing channel; said data being inserted into a subcarrier in a composite baseband of television signals, of zero to 120 kilohertz.

24. The apparatus as claimed in Claim 20 in which said transmission means includes an AM radio broadcast station transmitting on an existing channel.

25. The apparatus as claimed in Claim 20 in which said transmission means includes a FM radio broadcasting station transmitting on an existing channel.

26. The apparatus as claimed in Claim 24 in which said AM radio broadcast station transmits said data by signals not audible on ordinary consumer receivers.

27. The apparatus as claimed in Claim 25 in which said FM radio broadcast station transmits said data by modulating a subcarrier at a center frequency of said channel.

28. The apparatus as claimed in Claim 25 in which said FM radio broadcast station transmits said data by modulating a subcarrier at a center frequency of said channel.